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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,534	11/08/2001	Philip W. Eggleston	EGGL-0001D2	9272

7590

04/21/2006

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EXAMINER

LEE, GILBERT Y

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,534

Applicant(s)

EGGLESTON, PHILIP W.

Examiner

Gilbert Y. Lee

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/23/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-14, 16 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7, 9-14 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 8, 16 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The amendment filed 2/17/04 has been entered.

#### *Claim Objections*

2. Claim 5 is objected to because of the following informalities: "said cavity has an elliptical configurations, and" in line 2 should be removed because it is already recited in claim 1. Appropriate correction is required.
3. Claim 7 is objected to because of the following informalities: "said a first" in line 8 should be changed to --said first--. Appropriate correction is required.
4. Claim 8 is objected to because of the following informalities: "spaced a" in line 3 should be changed to --spaced--. Appropriate correction is required.
5. Claim 11 is objected to because of the following informalities: "valve a body" in line 7 should be changed to --valve body--. Appropriate correction is required.
6. Claim 13 is objected to because of the following informalities: "the external a" in line 3 should be changed to --the external-- and "end a portions" in line 8 should be changed to --end portions--. Appropriate correction is required.

Art Unit: 3673

7. Claim 19 is objected to because of the following informalities: "a seating a" in line 3 should be changed to --a seating--, "said a disc" in line 8 should be changed to --said disc--, and "a body and" in line 10 should be changed to --body and--. Appropriate correction is required.

8. Claim 22 is objected to because of the following informalities: "end a portions" in line 8 should be changed to --end portions--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 9 and 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 11 both recite "a shaft". Claim 1 recites "a shaft" as well. It is unclear to the examiner whether applicant wishes to have two separate shafts or one shaft. Because an amendment was filed, the examiner is interpreting the claims as to read as "the shaft" meaning that there is only one shaft in the invention.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scobie et al. (US Patent No. 4,659,064).

Regarding claim 14, the Scobie et al. reference discloses a rotary valve (Fig. 1) comprising: a valve body (12) having an interior (Fig. 1); a seal structure (28) carried by said valve body and defining a seating surface (surface at 34); a disc (32) carried within said valve body interior for rotation; a shaft (36) having a first longitudinal portion (portion of shaft 36 inside of the valve body) and a second longitudinal portion (portion of shaft 36 outside of the valve body); and abutting fixed geometry structures (including 48, 49, 42, 46) including first (48) and second (49) guide structures spaced apart and extending inwardly into said interior of said valve body (Fig. 1), and a mounting structure (42, 46) having oppositely facing surfaces spaced apart (Fig. 1) and abutting said first and second guide structures such that said first longitudinal portion of said shaft rotatably extends through said first guide structure (Fig. 1).

Regarding claim 18, the Scobie et al. reference discloses the first and second guide structures having a portion rotatably coupled to said mounting structure (Fig. 1). Note that the first and second guide structures are bearings (Col. 3, Lines 5-7) thus making the guide structures rotatably coupled to the said mounting structure through the shafts 36 and 38).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 4-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scobie et al. in view of Hubertson (US Patent No. 4,286,769).

Regarding claim 1, the Scobie et al. reference discloses a rotary valve (Fig. 1) comprising: a valve body (12); a seal structure (28) carried by said valve body and defining a seating surface (surface at 34); a shaft (36) having a first longitudinal portion (portion of shaft 36 outside of the valve body) and a second longitudinal portion (portion of shaft 36 inside of the valve body); a disc (32) connected to said second longitudinal portion (Fig. 1).

However, the Scobie et al. reference does not teach a seal structure having opposing first and second annular seal cartridge members wherein the seal cartridge members form a cavity to receive a resilient annular seal such that said annular seal inwardly protrudes from said cavity, said cavity having an elliptical configuration to deform said resilient annular seal to an elliptical shape; and said disc having an elliptical periphery.

The Hubertson reference, a butterfly valve, discloses a seal face having an elliptic shape (Col. 3, Lines 23-26) and spring washers (10 and 11) which constitute carriers for a valve seat (12) (Col. 3, Lines 34-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the butterfly valve of the Scobie et al. reference by including spring washers and making the seal and disc elliptical as taught by the Hubertson reference in order to provide a valve seat which can be used for throttles of different shapes (Hubertson Col. 2, Lines 1-5).

Regarding claim 4, the Scobie et al. reference as modified in claim 1 discloses a radially outer peripheral portion clamped between opposing portions of said first (Hubertson 16a) and second (Hubertson 16b) seal cartridge members (Hubertson Fig. 2).

Regarding claim 5, the Scobie et al. reference as modified in claim 1 discloses the seal member being made of metal (Hubertson Col. 3, Lines 56-57) and being deformable (Hubertson Col. 4, Lines 16-23).

Regarding claim 6 and 7, the Scobie et al. reference as modified in claim 1 discloses the valve body having an interior (Scobie et al. Fig. 1), and abutting fixed geometry structures (including 48, 49, 42, 46) including first (48) and second (49) guide structures spaced apart and extending inwardly into said interior of said valve body (Fig. 1), and a mounting structure (42, 46) having oppositely facing surfaces spaced apart (Fig. 1) and abutting said first and second guide structures.

Regarding claim 9, the Scobie et al. reference as modified in claim 1, and as best understood, discloses said shaft having a first longitudinal portion of rotatably extending through said first guide structure (Scobie et al. Fig. 1)

Regarding claim 10, the Scobie et al. reference as modified in claim 1, discloses the first and second guide structures having a portion rotatably coupled to said mounting structure (Scobie et al. Fig. 1). Note that the first and second guide structures are bearings (Col. 3, Lines 5-7) thus making the guide structures rotatably coupled to the said mounting structure through the shafts 36 and 38).

11. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scobie et al. in view of Hubertson as applied to claim 1 above, and further in view of Bylsma (US Patent No. 4,181,288).

Regarding claims 11-13, the Scobie et al. reference as modified in claim 1, discloses the claimed invention substantially as claimed.

However, the Scobie et al. reference fails to explicitly disclose an actuator support structure connected to an actuator.

The Bylsma reference, a butterfly valve, discloses an actuator support structure (42). The actuator support structure is an onepiece, U-shaped construction with spaced leg portions (43) for removably securing the support to the valve body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Scobie et al. reference as modified by including an



Art Unit: 3673

actuator support structure as taught by the Bylsma reference in order to provide a protective cover for the actuator (Bylsma Col. 2, Lines 21-23).

12. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scobie et al. in view of Bylsma.

Regarding claims 19-21, the Scobie et al. reference discloses a rotary valve (Fig. 1) comprising: a valve body (12); a seal structure (28) carried by said valve body and defining a seating surface (surface at 34); a disc (32) carried within said valve body interior for rotation; a shaft (36) having a first longitudinal portion (portion of shaft 36 inside of the valve body) and a second longitudinal portion (portion of shaft 36 outside of the valve body); and abutting fixed geometry structures (including 48, 49, 42, 46) including first (48) and second (49) guide structures spaced apart and extending inwardly into said interior of said valve body (Fig. 1), and a mounting structure (42, 46) having oppositely facing surfaces spaced apart (Fig. 1) and abutting said first and second guide structures such that said first longitudinal portion of said shaft rotatably extends through said first guide structure (Fig. 1).

However, the Scobie et al. reference fails to explicitly disclose an actuator support structure connected to an actuator.

The Bylsma reference, a butterfly valve, discloses an actuator support structure (42). The actuator support structure is an onepiece, U-shaped construction with spaced leg portions (43) for removably securing the support to the valve body.

Art Unit: 3673

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Scobie et al. reference by including an actuator support structure as taught by the Bylsma reference in order to provide a protective cover for the actuator (Bylsma Col. 2, Lines 21-23).

### ***Allowable Subject Matter***

13. Claims 8, 16, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

14. Applicant's arguments with respect to claim 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Simmons et al. (US Patent No. 4,113,268), Hubertson (US Patent No. 4,284,264), Scobie (US Patent No. 4,505,290), and Hayes et al. (US Patent No. 4,796,857).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gilbert Y. Lee whose telephone number is 571-272-5894. The examiner can normally be reached on 8:00 - 4:30, M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 3673

GL  
4/16/06



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